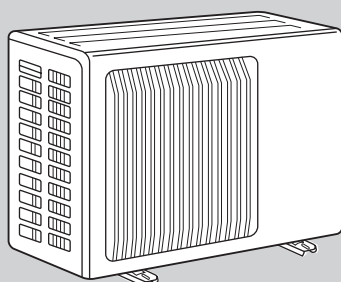


TECHNICAL & SERVICE MANUAL

Outdoor unit

[Model names]	[Service Ref.]		
SUH-1VR	SUH-1VR.TH		
SUH-1.6VR	SUH-1.6VR.TH		
SUH-1.6VR2	SUH-1.6VR2.TH		
SUH-2VR	SUH-2VR.TH	SUH-2VR ₁ .TH	SUH-2VR ₂ .TH
SUH-2.5VR	SUH-2.5VR.TH		
SU-1.6NR	SU-1.6NR.TH		
SU-2NR	SU-2NR.TH		
SU-2.5NR	SU-2.5NR.TH		
SU-1VR	SU-1VR.TH	SU-1VR.TH-T	
SU-1.6VR	SU-1.6VR.TH	SU-1.6VR.TH-T	
SU-1.6VR2	SU-1.6VR2.TH	SU-1.6VR2.TH-T	
SU-2VR	SU-2VR.TH	SU-2VR.TH-T	
	SU-2VR ₁ .TH	SU-2VR ₁ .TH-T	
SU-2.5VR	SU-2.5VR.TH	SU-2.5VR.TH-T	



OUTDOOR UNIT

CONTENTS

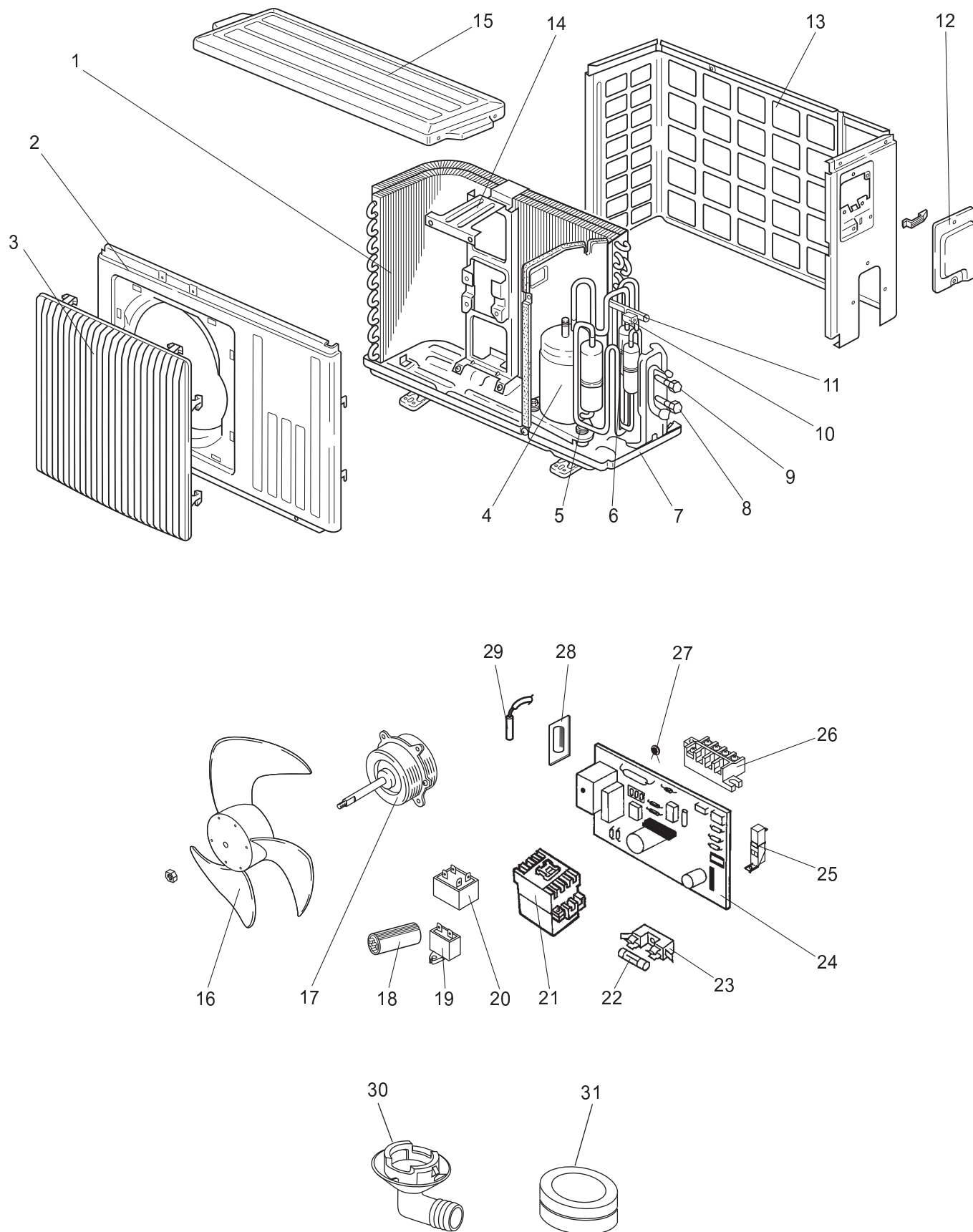
1. TECHNICAL CHANGES	2
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- SU-1VR.TH-T, SU-1.6VR2.TH-T and SU-2VR₁.TH-T has been added.
- Instruction of troubleshooting has been added to page 29 and 30.
- Please void OC282 REVISED EDITION-A.

OUTDOOR UNIT

STRUCTURAL PARTS

SUH-1VR.TH SU-1VR.TH SU-1VR.TH-T



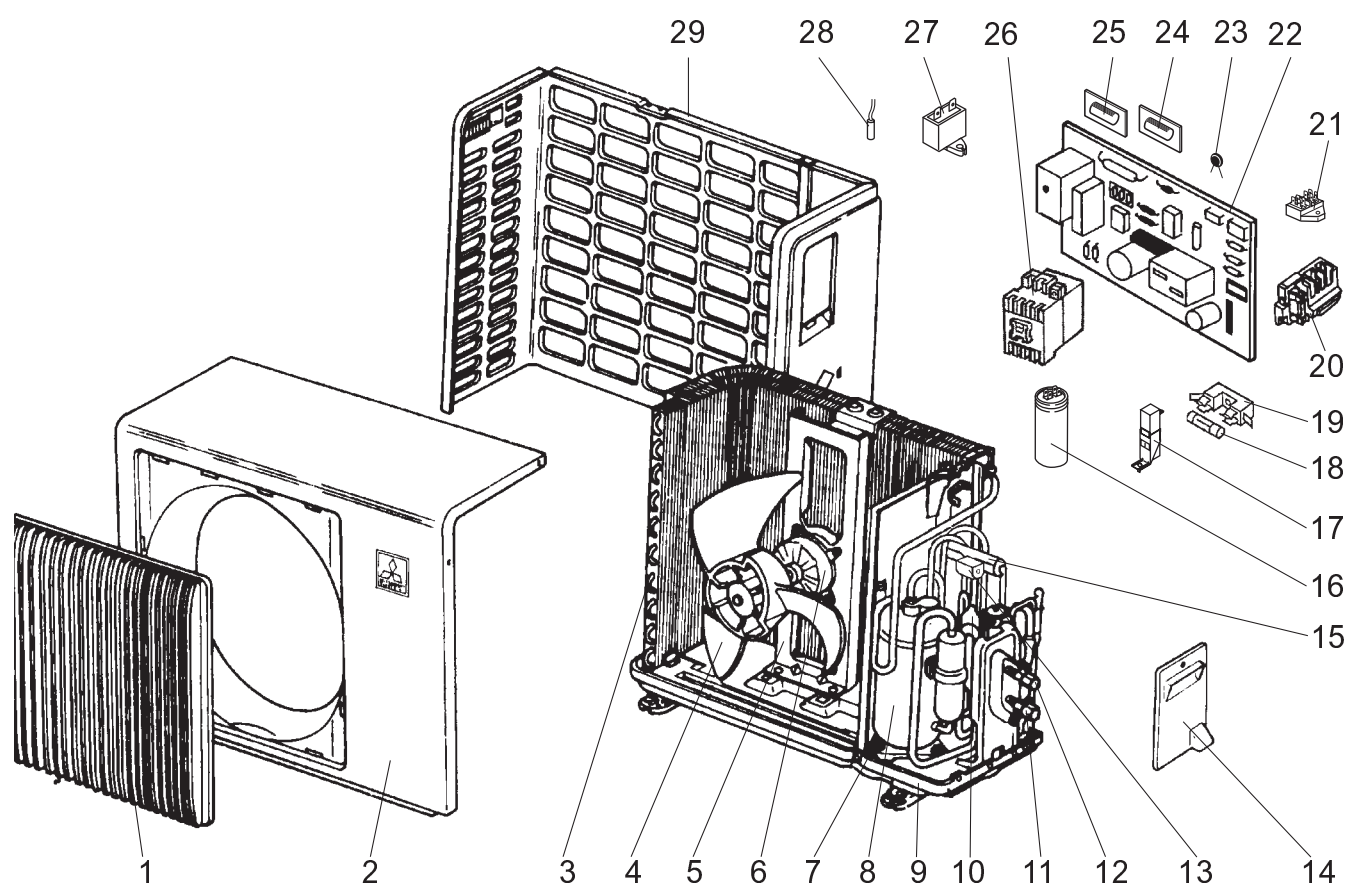


Part numbers that are circled are not shown in the illustration.

No.	Parts No.	Parts name	Specification	Q'ty/set		Remarks (Drawing No.)	Wiring Diagram Symbol	Recom- mended Q'ty	Price	
				SUH-1	SU-1				Unit	Amount
				VR.TH	VR.TH VR.TH-T					
1	E02 440 630	OUTDOOR HEAT EXCHANGER		1						
	E02 336 630	OUTDOOR HEAT EXCHANGER			1					
2	E02 336 232	CABINET		1	1					
3	E02 336 521	GRILLE (OUT)		1	1					
4	E02 128 900	COMPRESSOR	RH-174VGHT	1	1		MC			
5	E02 336 506	COMPRESSOR RUBBER MOUNT		3	3	3RUBBERS/SET				
6	E02 096 932	ACCUMULATOR		1						
7	E02 339 290	BASE		1	1					
8	E02 339 661	STOP VALVE (GAS)	φ9.52	1	1					
9	E02 339 662	STOP VALVE (LIQUID)	φ6.35		1					
	E02 139 662	STOP VALVE (LIQUID)	φ6.35	1						
10	E02 440 490	4-WAY VALVE SOLENOID COIL		1			21S4			
11	E02 444 961	4-WAY VALVE		1						
12	E02 336 245	SERVICE PANEL		1	1					
13	E02 440 233	BACK PANEL (OUT)		1						
	E02 339 233	BACK PANEL (OUT)			1					
14	E02 336 515	MOTOR SUPPORT		1	1					
15	E02 336 297	TOP PANEL		1	1					
16	E02 665 501	PROPELLER FAN		1	1					
17	E07 112 301	OUTDOOR FAN MOTOR		1			MF			
	E02 676 301	OUTDOOR FAN MOTOR			1		MF			
18	E02 694 353	COMPRESSOR CAPACITOR	25μF 440VAC	1	1		C1			
19	E02 095 350	OUTDOOR FAN CAPACITOR	1.5μF 440VAC		1		C2			
20	E02 282 340	COMPRESSOR CONTACTOR	VF12HU-302	1			52C			
21	E07 042 340	COMPRESSOR CONTACTOR	S-N11EX		1		52C			
22	E02 095 382	FUSE (OUT)	250V 2A	1			F61			
23	E07 001 241	FUSE HOLDER		1						
24	E07 112 451	DEICER P.C. BOARD		1						
25	E02 128 383	SURGE ABSORBER		1			DSAR			
26	E02 198 374	TERMINAL BLOCK		1			TB			
	E02 209 374	TERMINAL BLOCK			1		TB			
27	E02 085 385	VARISTOR		1			NR61			
28	E07 042 384	SURGE ABSORBER			1		CR			
29	E02 289 310	DEFROST THERMISTOR		1			RT61			
30	E02 444 704	DRAIN SOCKET SET		1						
31	E02 440 705	DRAIN CAP		2		2PCS/SET				
32	E07 112 933	STRAINER		1						
	E02 205 933	STRAINER			1					
33	E02 069 644	DIS PRESSURE REGULATOR		1						
34	E02 154 642	RESTRICTOR VALVE		1						
35	E02 159 936	CAPILLARY TUBE1	φ3.0Xφ1.4XL800	2						
36	E02 134 937	CAPILLARY TUBE2	φ3.0Xφ1.6XL400	1						
37	E07 112 936	CAPILLARY TUBE3	φ3.0Xφ1.4XL580	1						
	E02 339 936	CAPILLARY TUBE3	φ3.0Xφ1.4XL600		1					

OUTDOOR UNIT STRUCTURAL PARTS

SUH-1.6VR.TH SU-1.6VR.TH SU-1.6VR.TH-T
SUH-1.6VR2.TH SU-1.6VR2.TH SU-1.6VR2.TH-T



No.	Parts No.	Parts name	Specification	Q'ty/set				Remarks (Drawing No.)	Wiring Diagram Symbol	Recom- mended Q'ty	Price	
				SUH-1.6		SU-1.6					Unit	Amount
				VR.TH	VR2.TH	VR.TH	VR2.TH					
1	E02 141 521	GRILLE (OUT)		1	1	1	1					
2	E02 141 232	CABINET		1	1	1	1					
3	E07 042 630	OUTDOOR HEAT EXCHANGER		1	1							
	E02 141 630	OUTDOOR HEAT EXCHANGER				1	1					
4	E02 141 501	PROPELLER FAN		1	1	1	1					
5	E02 139 515	MOTOR SUPPORT		1	1							
	E02 140 515	MOTOR SUPPORT				1	1					
6	E02 141 301	OUTDOOR FAN MOTOR		1	1	1	1		MF			
7	E02 075 506	COMPRESSOR RUBBER MOUNT		3	3	3	3	3RUBBERS/SET				
8	E07 042 900	COMPRESSOR	RH-247VHAT	1		1			MC			
	E07 111 900	COMPRESSOR	RH-277VHAT		1		1		MC			
9	E02 201 290	BASE		1								
	E07 113 290	BASE			1							
	E02 140 290	BASE				1	1					



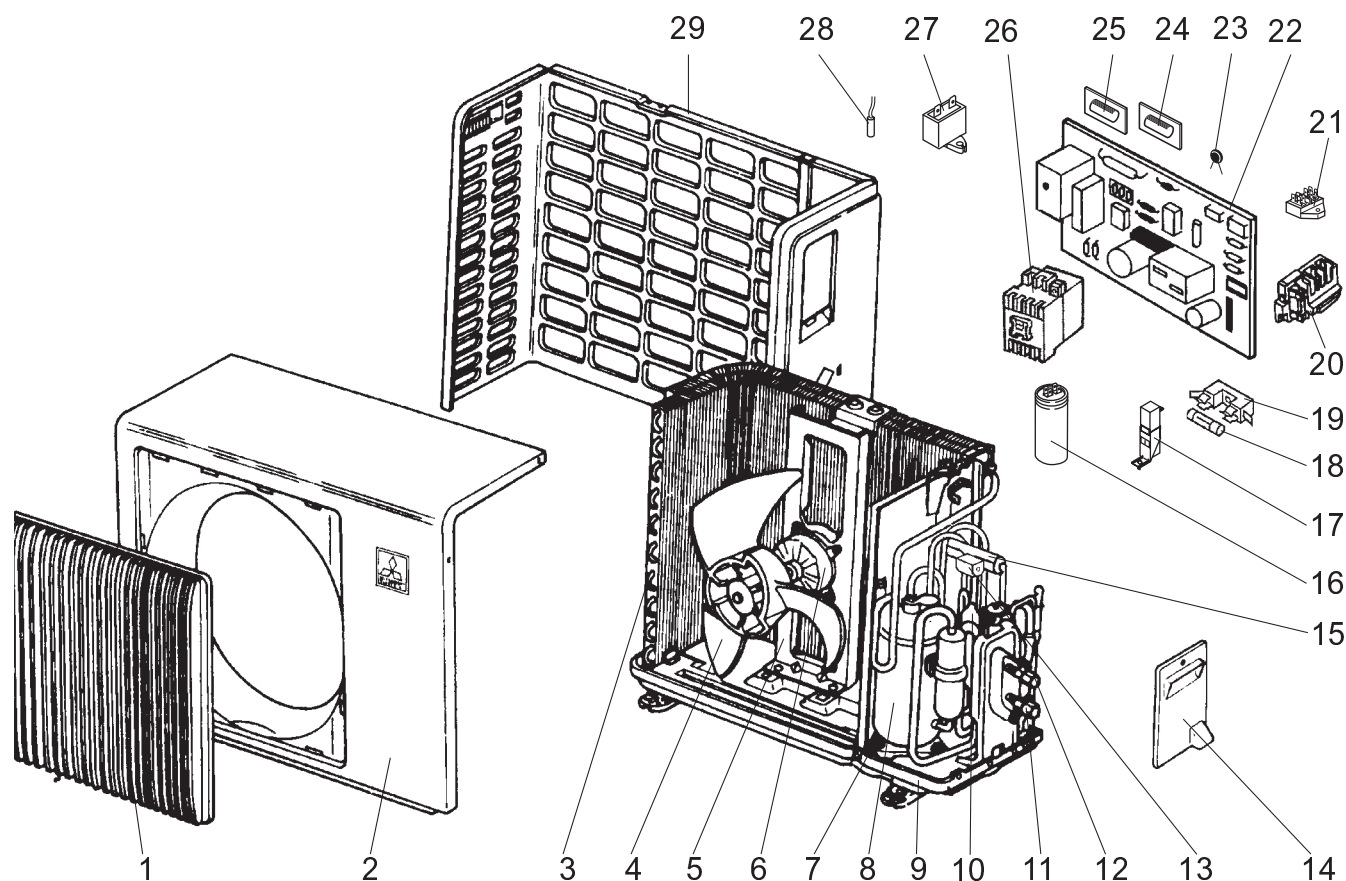
Part numbers that are circled are not shown in the illustration.

No.	Parts No.	Parts name	Specification	Q'ty/set				Remarks (Drawing No.)	Wiring Diagram Symbol	Recom- mended Q'ty	Price	
				SUH-1.6		SU-1.6					Unit	Amount
				VR.TH	VR2.TH	VR.TH VR.TH-T	VR2.TH VR2.TH-T					
10	E02 134 932	ACCUMULATOR		1								
	E07 113 932	ACCUMULATOR			1							
11	E02 140 661	STOP VALVE (GAS)	ϕ12.7	1	1	1	1					
12	E02 139 662	STOP VALVE (LIQUID)	ϕ6.35	1	1	1	1					
13	E02 156 490	4-WAY VALVE SOLENOID COIL		1	1				21S4			
14	E02 141 245	SERVICE PANEL		1	1	1	1					
15	E02 444 961	4-WAY VALVE		1	1							
16	E02 089 353	COMPRESSOR CAPACITOR	35μF 440VAC	1		1			C1			
	E07 111 353	COMPRESSOR CAPACITOR	40μF 440VAC		1		1		C1			
17	E02 128 383	SURGE ABSORBER 1		1	1				DSAR			
18	E02 095 382	FUSE (OUT)	250V 2A	1	1	1	1		F			
19	E07 001 241	FUSE HOLDER		1	1	1	1					
20	E02 198 374	TERMINAL BLOCK		1	1				TB			
	E02 209 374	TERMINAL BLOCK				1	1		TB			
21	E07 056 374	TERMINAL BLOCK				1	1		TB2			
22	E07 042 451	DEICER P.C. BOARD		1	1							
23	E02 085 385	VARISTOR		1	1				NR61			
24	E07 042 384	SURGE ABSORBER 2		1	1	1	1		CR			
25	E02 214 386	SURGE ABSORBER 3		1	1				CZ			
26	E07 042 340	COMPRESSOR CONTACTOR	S-N11EX	1	1	1	1		52C1/52C			
27	E02 138 351	FAN MOTOR CAPACITOR	3.0μF 440VAC			1	1		C2			
28	E02 139 310	DEFROST THERMISTOR		1	1				RT61			
29	E02 140 233	BACK PANEL (OUT)		1	1							
	E07 054 233	BACK PANEL (OUT)				1	1					
30	E02 154 642	RESTRICTOR VALVE		1	1							
31	E07 042 644	DIS PRESSURE REGULATOR		1	1							
32	E07 042 933	STRAINER 1		1	1							
33	E02 205 933	STRAINER				1	1					
34	E07 042 936	CAPILLARY TUBE	ϕ3.0Xϕ1.8XL330	1								
	E07 113 936	CAPILLARY TUBE	ϕ3.0Xϕ1.6XL420		1							
35	E07 042 937	CAPILLARY TUBE	ϕ3.0Xϕ1.6XL550	1								
	E02 271 936	CAPILLARY TUBE	ϕ3.0Xϕ1.8XL550		1							
36	E02 140 936	CAPILLARY TUBE	ϕ3.0Xϕ1.8XL800			1						
	E02 285 936	CAPILLARY TUBE	ϕ3.0Xϕ1.8XL500				1					

OUTDOOR UNIT

STRUCTURAL PARTS

SUH-2VR.TH SU-2VR.TH SU-2VR.TH-T
 SUH-2VR₁.TH SU-2VR₁.TH SU-2VR₁.TH-T
 SUH-2VR₂.TH

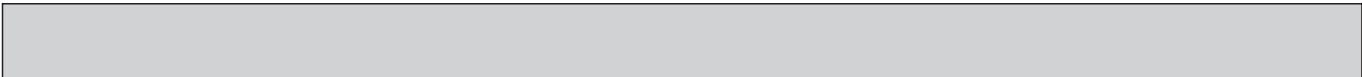


No.	Parts No.	Parts name	Specification	Q'ty/set					Remarks (Drawing No.)	Wiring Diagram Symbol	Recom- mended Q'ty	Price	
				SUH-2			SU-2					Unit	Amount
				VR.TH	VR1.TH	VR2.TH	VR.TH	VR1.TH VR1.TH-T					
1	E02 141 521	GRILLE (OUT)		1	1	1	1	1					
2	E02 141 232	CABINET		1	1	1	1	1					
3	E07 139 630	OUTDOOR HEAT EXCHANGER		1	1								
	E02 643 630	OUTDOOR HEAT EXCHANGER				1							
	E02 138 630	OUTDOOR HEAT EXCHANGER					1	1					
4	E02 141 501	PROPELLER FAN		1	1	1	1	1					
5	E02 139 515	MOTOR SUPPORT		1	1	1							
	E02 138 515	MOTOR SUPPORT					1	1					
6	E02 144 301	OUTDOOR FAN MOTOR		1	1	1	1	1		MF			
7	E02 138 506	COMPRESSOR RUBBER MOUNT		4	4	4	4	4	4RUBBERS/SET				
8	E02 007 900	COMPRESSOR	NH-38VMDT	1	1	1	1	1		MC			
9	E02 139 290	BASE		1	1	1							
	E02 138 290	BASE					1	1					

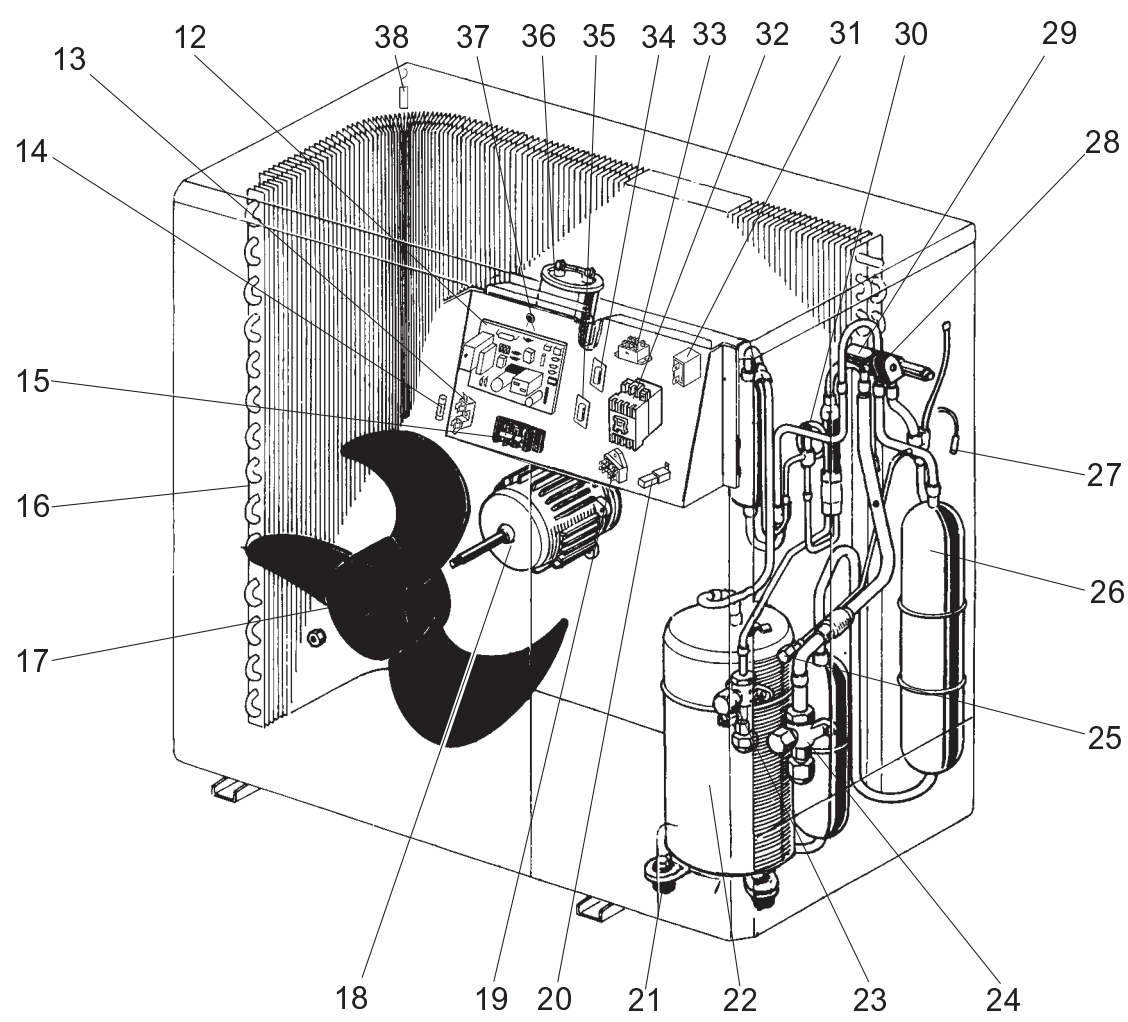
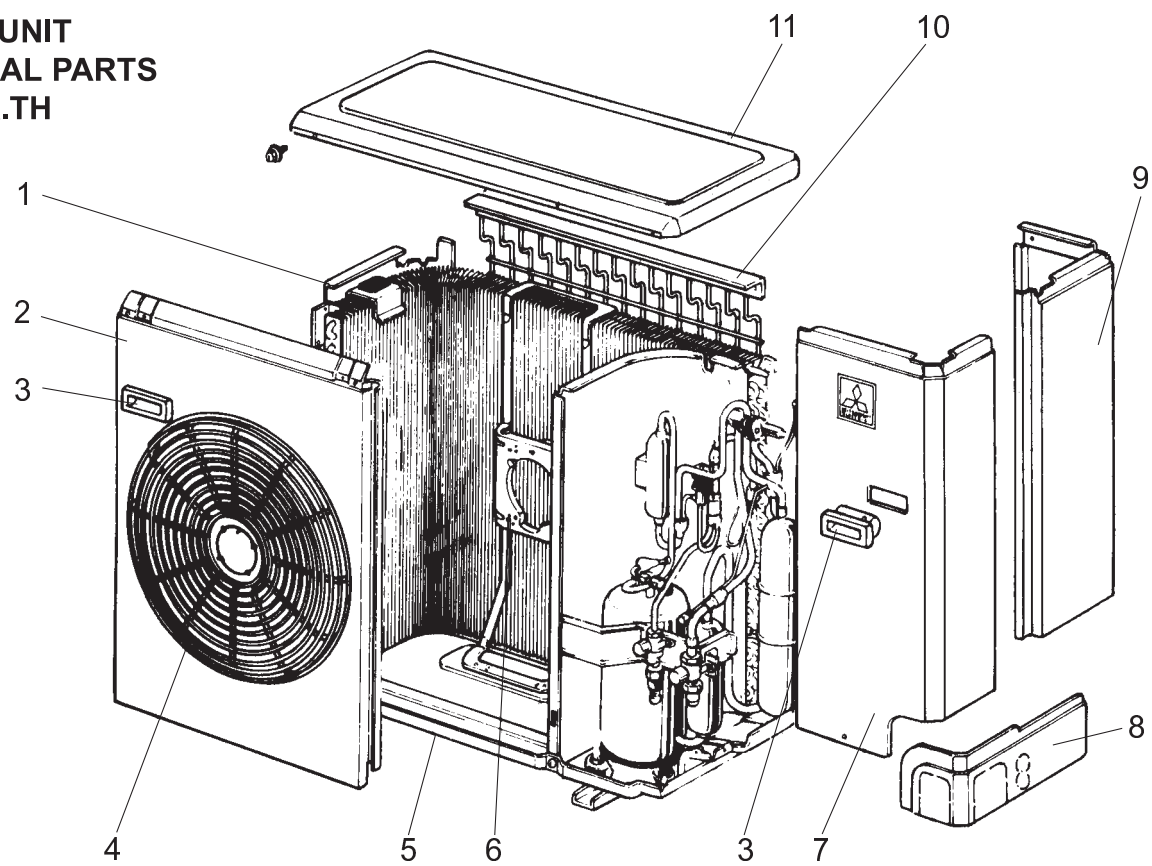


Part numbers that are circled are not shown in the illustration.

No.	Parts No.	Parts name	Specification	Q'ty/set					Remarks (Drawing No.)	Wiring Diagram Symbol	Recom- mended Q'ty	Price	
				SUH-2			SU-2					Unit	Amount
				VR.TH	VR ₁ .TH	VR ₂ .TH	VR.TH VR.TH-T	VR ₁ .TH VR ₁ .TH-T					
10	E02 258 932	ACCUMULATOR		1	1	1							
	E07 058 932	ACCUMULATOR					1	1					
11	E02 150 661	STOP VALVE (GAS)	ϕ15.88	1	1	1	1	1					
12	E02 139 662	STOP VALVE (LIQUID)	ϕ6.35	1	1	1	1	1					
13	E02 139 490	4-WAY VALVE SOLENOID COIL		1	1	1				21S4			
14	E02 141 245	SERVICE PANEL		1	1	1	1	1					
15	E02 444 961	4-WAY VALVE		1	1	1							
16	E02 082 353	COMPRESSOR CAPACITOR	50μF 440VAC	1			1			C1			
	E07 114 353	COMPRESSOR CAPACITOR	50μF 440VAC		1	1		1		C1			
17	E02 128 383	SURGE ABSORBER 1		1	1	1				DSAR			
18	E02 095 382	FUSE (OUT)	250V 2A	1	1	1	1	1					
19	E07 001 241	FUSE HOLDER		1	1	1	1	1					
20	E02 198 374	TERMINAL BLOCK		1	1	1				TB			
	E02 209 374	TERMINAL BLOCK					1	1		TB			
21	E07 056 374	TERMINAL BLOCK					1	1		TB2			
22	E07 043 451	DEICER P.C. BOARD		1	1	1							
23	E02 085 385	VARISTOR		1	1	1				NR61			
24	E07 042 384	SURGE ABSORBER 2		1	1	1	1	1		CR			
25	E02 214 386	SURGE ABSORBER 3		1	1	1				CZ			
26	E07 012 340	COMPRESSOR CONTACTOR	S-N18EX	1	1	1	1	1		52C1/52C			
27	E02 138 351	FAN MOTOR CAPACITOR	3.0μF 440VAC				1	1		C2			
28	E02 139 310	DEFROST THERMISTOR		1	1	1				RT61			
29	E02 140 233	BACK PANEL (OUT)		1	1	1	1	1					
30	E02 096 642	RESTRICTOR VALVE		1	1								
	E02 214 642	RESTRICTOR VALVE				1							
31	E07 042 644	DIS PRESSURE REGULATOR		1	1	1							
32	E07 042 933	STRAINER 1		1	1	1							
33	E02 236 933	STRAINER					1	1					
34	E07 043 936	CAPILLARY TUBE	ϕ3.0Xϕ1.6XL860	2	2	2							
35	E07 049 936	CAPILLARY TUBE	ϕ4.0Xϕ2.4XL660	1	1								
	E02 257 936	CAPILLARY TUBE	ϕ3.0Xϕ2.0XL250			1							
37	E07 055 936	CAPILLARY TUBE	ϕ3.0Xϕ2.0XL570				1	1					



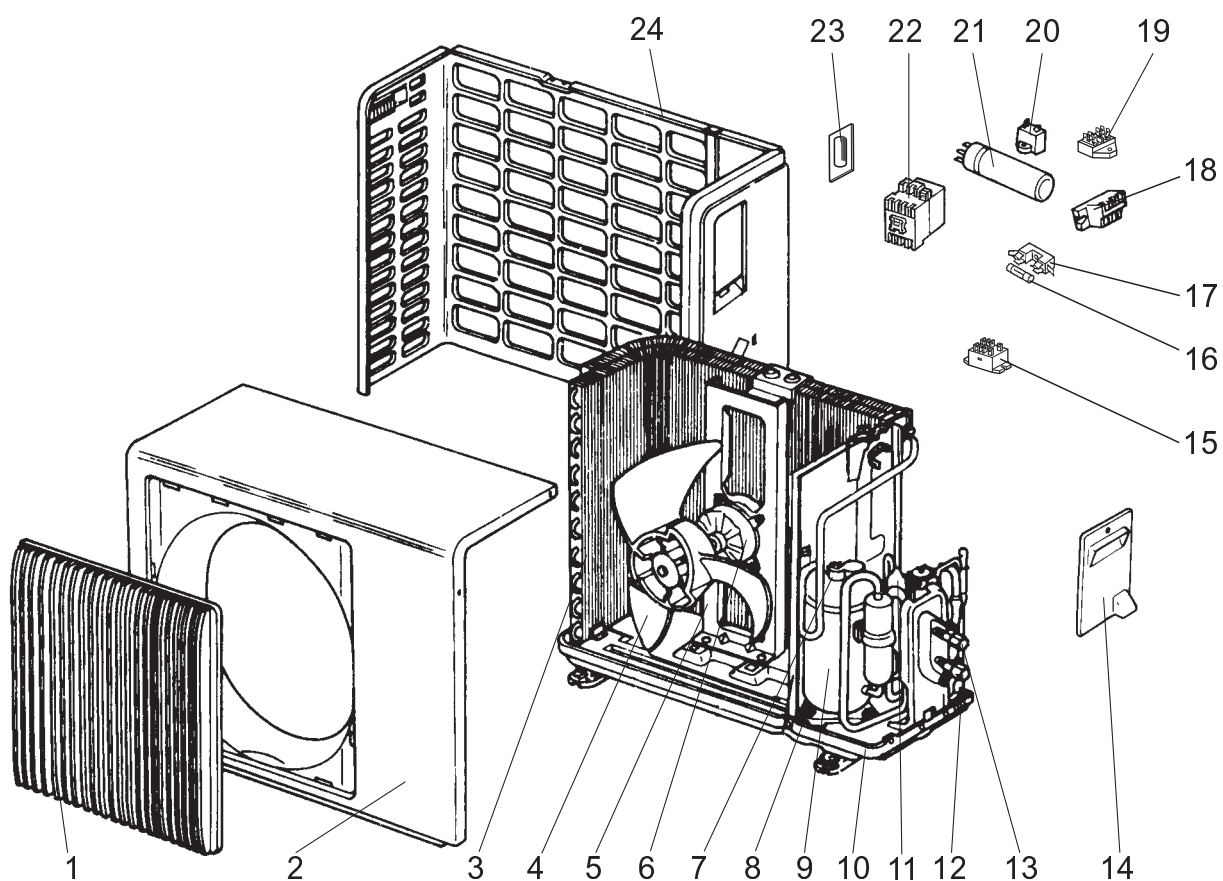
**OUTDOOR UNIT
STRUCTURAL PARTS
SUH-2.5VR.TH**



Part number that are circled is not shown in the illustration.

No.	Parts No.	Parts name	Specification	Q'ty/set	Remarks (Drawing No.)	Wiring Diagram Symbol	Recom- mended Q'ty	Price	
				SUH-2.5VR.TH				Unit	Amount
1	E02 214 249	LEFT SIDE PANEL		1					
2	E02 214 232	FRONT PANEL		1					
3	E07 001 009	HANDEL		3					
4	E02 214 521	FAN GUARD		1					
5	E02 214 290	BASE		1					
6	E02 214 515	MOTOR SUPPORT		1					
7	E02 214 245	SERVICE PANEL		1					
8	E07 001 006	PANEL COVER		1					
9	E02 214 522	REAR PANEL		1					
10	E07 003 523	REAR GUARD		1					
11	E02 214 297	TOP PANEL		1					
12	E07 044 451	DEICER P.C. BOARD		1					
13	E07 001 241	FUSE HOLDER		1					
14	E02 095 382	FUSE(OUT)	250V 2A	1		F			
15	E02 198 374	TERMINAL BLOCK		1		TB			
16	E02 214 630	OUTDOOR HEAT EXCHANGER		1					
17	E02 214 501	PROPELLER FAN		1					
18	E02 214 301	FAN MOTOR		1		MF			
19	E07 044 374	TERMINAL BLOCK		1		TB2			
20	E02 128 383	SURGE ABSORBER 1		1		DSAR			
21	E02 138 506	COMPRESSOR RUBBER MOUNT		4	4RUBBER				
22	E02 042 900	COMPRESSOR	NH-47VMDT	1		MC			
23	E02 010 662	BALL VALVE(LIQUID)	3/8"	1					
24	E02 010 661	BALL VALVE(GAS)	5/8"	1					
25	E07 001 641	CHARGE PLUG		1					
26	E02 214 932	ACCUMULATOR		1					
27	E02 214 310	DEFROST THERMISTOR		1		RT61			
28	E02 156 490	SOLENOID COIL		1		21S4			
29	E02 077 961	REVERSING VALVE		1					
30	E07 044 936	CAPILLARY TUBE	$\phi 4.0 \times \phi 2.0 \times L410$	1					
31	E02 138 351	FAN MOTOR CAPACITOR	3.0 μ F-440VAC	1		C2			
32	E07 012 340	COMPRESSOR CONTACTOR	S-N18EX	1		52C1/52C			
33	E02 288 343	FAN MOTOR RELAY		1		X1			
34	E02 214 384	SURGE ABSORBER 2		1		CR			
35	E02 214 386	SURGE ABSORBER 3		1		CZ			
36	E02 082 353	COMPRESSOR RUN CAPACITOR	50 μ F-440VAC	1		C1			
37	E02 085 385	VARISTOR		1		NR61			
38	E02 214 381	THERMAL REED SWITCH		1		26F1			
39	E07 042 644	DIS PRESSURE REGULATOR		1					
40	E07 044 933	STRAINER 2		1					
41	E07 050 933	STRAINER 3		1					

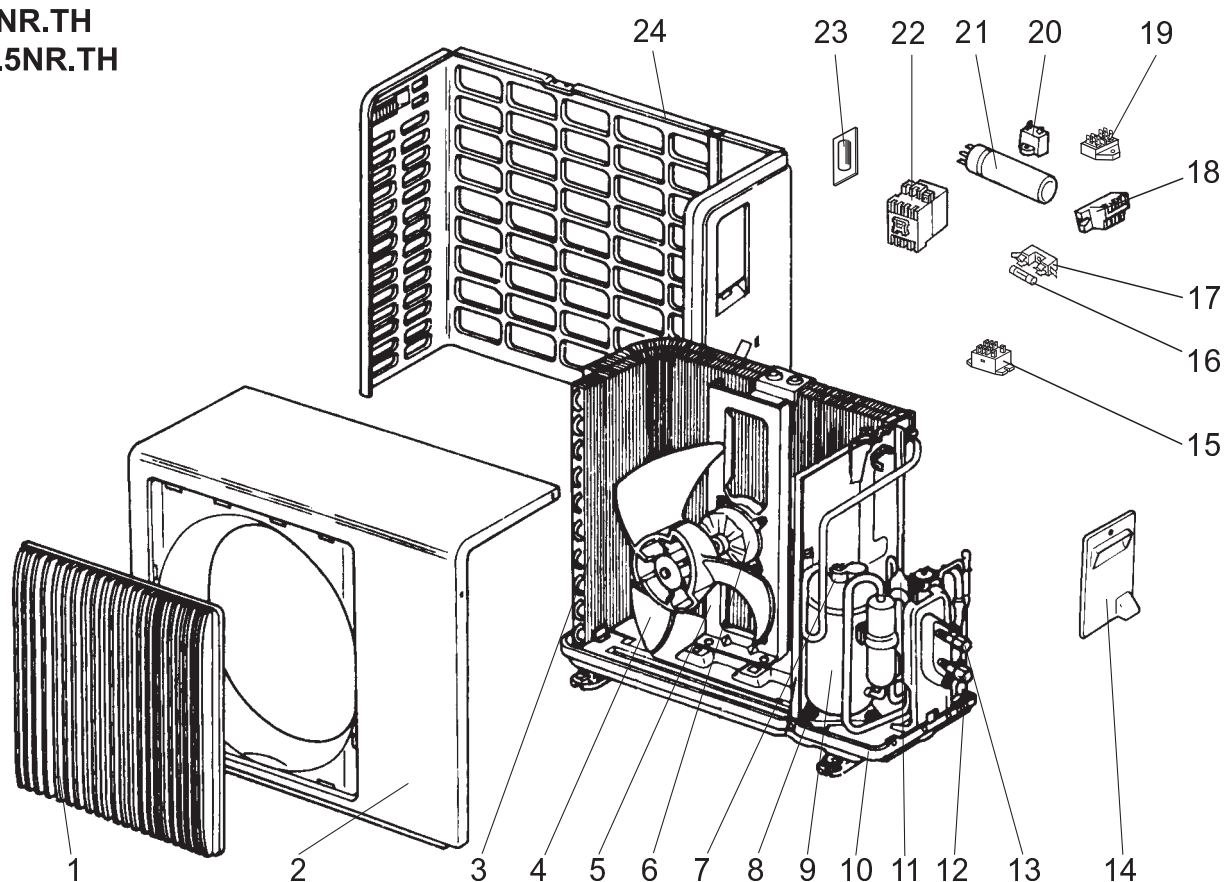
**OUTDOOR UNIT
STRUCTURAL PARTS
SU-2.5VR.TH
SU-2.5VR.TH-T**



Part number that are circled is not shown in the illustration.

No.	Parts No.	Parts name	Specification	Q'ty/set	Remarks (Drawing No.)	Wiring Diagram Symbol	Recom- mended Q'ty	Price	
				SU-2.5VR.TH SU-2.5VR.TH-T				Unit	Amount
1	E02 141 521	GRILLE(OUT)		1					
2	E02 141 232	CABINET		1					
3	E02 147 630	OUTDOOR HEAT EXCHANGER		1					
4	E02 141 501	PROPELLER FAN		1					
5	E02 139 515	MOTOR SUPPORT		1					
6	E02 147 301	FAN MOTOR		1		MF			
7	E02 229 381	THERMAL REED SWITCH		1		26F1			
8	E02 138 506	COMPRESSOR RUBBER MOUNT		4	4RUBBER				
9	E02 042 900	COMPRESSOR	NH-47VMDT	1		MC			
10	E02 176 290	BASE		1					
11	E07 058 932	ACCUMULATOR		1					
12	E02 150 661	STOP VALVE(GAS)	φ15.88	1					
13	E02 176 662	STOP VALVE(LIQUID)	φ9.52	1					
14	E02 141 245	SERVICE PANEL		1					
15	E02 288 343	FAN MOTOR RELAY		1		X1			
16	E02 095 382	FUSE(OUT)	250V 2A	1		F			
17	E07 001 241	FUSE HOLDER		1					
18	E02 209 374	TERMINAL BLOCK		1		TB			
19	E07 056 374	TERMINAL BLOCK		1		TB2			
20	E02 138 351	FAN MOTOR CAPACITOR	3.0μF-440VAC	1		C2			
21	E02 082 353	COMPRESSOR CAPACITOR	50μF-440VAC	1		C1			
22	E07 012 340	COMPRESSOR CONTACTOR	S-N18EX	1		52C			
23	E07 042 384	SURGE ABSORBER		1		CR			
24	E02 140 233	BACK PANEL(OUT)		1					
25	E02 069 644	DIS PRESSURE REGULATOR		1					
26	E07 059 933	STRAINER		1					
27	E02 138 936	CAPILLARY TUBE	φ3.0×φ2.0×L700	1					
	E02 147 937	CAPILLARY TUBE	φ3.0×φ2.0×L100	1					

**OUTDOOR UNIT
STRUCTURAL PARTS
SU-1.6NR.TH
SU-2NR.TH
SU-2.5NR.TH**



No.	Parts No.	Parts name	Specification	Q'ty/set			Remarks (Drawing No.)	Wiring Diagram Symbol	Recom- mended Q'ty	Price	
				SU-1.6	SU-2	SU-2.5				Unit	Amount
				NR.TH							
1	E02 141 521	GRILLE(OUT)		1	1	1					
2	E02 141 232	CABINET		1	1	1					
3	E02 141 630	OUTDOOR HEAT EXCHANGER		1							
	E02 138 630	OUTDOOR HEAT EXCHANGER			1						
	E02 147 630	OUTDOOR HEAT EXCHANGER				1					
4	E02 141 501	PROPELLER FAN		1	1	1					
5	E02 140 515	MOTOR SUPPORT		1							
	E02 138 515	MOTOR SUPPORT			1						
	E02 139 515	MOTOR SUPPORT				1					
6	E02 141 301	FAN MOTOR		1				MF			
	E02 144 301	FAN MOTOR			1			MF			
	E02 147 301	FAN MOTOR				1		MF			
7	E02 229 381	THERMAL REED SWITCH				1		26F1			
8	E02 075 506	COMPRESSOR RUBBER MOUNT	3RUBBER	3							
	E02 138 506	COMPRESSOR RUBBER MOUNT	4RUBBER		4	4					
9	E02 271 900	COMPRESSOR	RH-207NHDT	1				MC			
	E07 058 900	COMPRESSOR	NH-33NCDT		1			MC			
	E02 177 900	COMPRESSOR	NH-38NBDT			1		MC			

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Part number that are circled is not shown in the illustration.

No.	Parts No.	Parts name	Specification	Q'ty/set			Remarks (Drawing No.)	Wiring Diagram Symbol	Recom- mended Q'ty	Price	
				SU-1.6	SU-2	SU-2.5				Unit	Amount
				NR.TH							
10	E02 140 290	BASE		1							
	E02 138 290	BASE			1						
	E02 176 290	BASE				1					
11	E07 058 932	ACCUMULATOR			1	1					
12	E02 140 661	STOP VALVE(GAS)	ϕ12.7	1							
	E02 150 661	STOP VALVE(GAS)	ϕ15.88		1	1					
13	E02 139 662	STOP VALVE(LIQUID)	ϕ6.35	1	1						
	E02 176 662	STOP VALVE(LIQUID)	ϕ9.52			1					
14	E02 141 245	SERVICE PANEL		1	1	1					
15	E02 288 343	FAN MOTOR RELAY				1		X1			
16	E02 095 382	FUSE(OUT)	250V 2A	1	1	1		F			
17	E07 001 241	FUSE HOLDER		1	1	1					
18	E02 209 374	TERMINAL BLOCK		1	1	1		TB			
19	E07 056 374	TERMINAL BLOCK		1	1	1		TB2			
20	E02 138 351	FAN MOTOR CAPACITOR	3.0μF-440VAC	1	1	1		C2			
21	E02 079 353	COMPRESSOR CAPACITOR	30 μF-440VAC	1				C1			
	E07 058 353	COMPRESSOR CAPACITOR	40 μF-440VAC		1			C1			
	E02 082 353	COMPRESSOR CAPACITOR	50 μF-440VAC			1		C1			
22	E07 057 340	COMPRESSOR CONTACTOR	S-N11EX	1				52C			
	E07 058 340	COMPRESSOR CONTACTOR	S-N18EX		1	1		52C			
23	E07 042 384	SURGE ABSORBER		1	1	1		CR			
24	E07 054 233	BACK PANEL(OUT)		1							
	E02 140 233	BACK PANEL(OUT)			1	1					
25	E02 069 644	DIS PRESSURE REGULATOR		1	1	1					
26	E07 057 933	STRAINER		1							
	E07 059 933	STRAINER			1	1					
27	E07 057 936	CAPILLARY TUBE	ϕ3.0×ϕ1.8×L100	1							
	E02 147 937	CAPILLARY TUBE	ϕ3.0×ϕ2.0×L100		1	1					
	E02 271 936	CAPILLARY TUBE	ϕ3.0×ϕ1.8×L550	1							
	E02 138 936	CAPILLARY TUBE	ϕ3.0×ϕ2.0×L700		1						
	E02 283 936	CAPILLARY TUBE	ϕ3.0×ϕ2.0×L600			1					
28	E07 057 305	THERMAL SWITCH		1	1	1		26C			

Mr. SLIM™

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